

Divjot Singh Kamboj

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Summary of Qualifications

- Third-year Computer Engineering student with a comprehensive understanding of hardware and software development.
- Proficient in programming languages: Python, Java, VHDL, C, HTML, and CSS.
- Experienced with tools and platforms: Quartus, Windows, Linux, Multisim, MATLAB, Altera FPGA, and Oscilloscopes.
- Strong foundation in technical documentation, including UML diagrams and source code specifications.
- Demonstrated ability to communicate complex technical concepts through coursework, projects, and professional experience.
- Strong communication skills, demonstrated through mentoring campers as a Summer Camp Counsellor at Ontario Tech University.

Education

Bachelor of Engineering (B.Eng): Computer Engineering

Toronto Metropolitan University, Toronto, Ontario

2022 – 2027

- **Relevant coursework:** Algorithms and Data Structures (**C**), Advanced Algorithms (**Java**), Digital Systems (**VHDL/FPGA**), Object-Oriented Engineering Analysis and Design (**Java**), Electronic Circuits (**Analog Design**), Microprocessors (**Assembly**)

Experience

Summer Camp Counsellor

Ontario Tech University

Oshawa, Ontario

2019 – 2023

- Instructed participants in coding, game design, and LEGO robotics, enhancing their understanding of engineering principles.
- Organized and managed educational and recreational activities, improving problem-solving and collaboration skills.
- Developed communication and leadership abilities through interactions with campers, parents, and staff.
- Facilitated clear communication among camp staff, ensuring smooth coordination of daily schedules and effective resolution of camper-related issues.

Projects

Simple General-Purpose Processor, Quartus, FPGA, and VHDL

- Designed and implemented a general-purpose processor using an FPGA platform, coding core modules like ALUs, decoders, and FSMs.
- Coded the processor in VHDL and tested its functionality in Quartus.
- Simulated and tested the processor to validate performance and functionality on an FPGA board.

Banking System, Java and JavaFX

- Developed a fully functional Mickey Mouse themed banking system with login features, customer account management, and transaction capabilities.
- Enabled customers to login using custom username and password.
- Customers can withdraw/deposit money, view previous transactions, balance, account level and make online transactions.
- Implemented a GUI for bank managers to add/remove accounts.
- Used UML diagrams to plan and organize the project structure and functionality.

2-Stage Amplifier Design, Multisim

- Designed a 2-stage amplifier using BJTs to meet specific gain requirements.
- Simulated the amplifier in Multisim to validate performance and optimize efficiency.